

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 7
2. AMENDMENT/MODIFICATION NO. 13		3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.
5. PROJECT NO. (If applicable)			
6. ISSUED BY John F. Kennedy Space Center, NASA Procurement Office – ODIN – OP-OS-ODIN Kennedy Space Center, FL 32899		7. ADMINISTERED BY (If other than Item 6)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) OAO Corporation 7375 Executive Place Seabrook, MD 20706-2278		(x) 9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-98144/NNK05OA12D 10B. DATED (SEE ITEM 13) December 1, 2004	
CODE	FACILITY CODE		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS			
<p>[] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [] is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:</p> <p>(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>			
12. ACCOUNTING AND APPROPRIATION DATA (If required)			

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.	
A.	THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B.	THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: NAS5-98144 Contract Clause C.7 Technology Refreshment Process and FAR Clause 52.212-4 Contract Terms and Conditions-Commercial Items, (c) Changes
D.	OTHER (Specify type of modification and authority)
E. IMPORTANT: Contractor [] is not, [X] is required to sign this document and return 1 copies to the issuing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)	

Stennis Space Center --- ODIN SERVICES

Technology Infrastructures: Incorporation of SWR XJCY 5090 00

Change in Delivery Order Price: \$115,104.49 (INCREASE)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Sheryl K. Weimann Contracts Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Penelope A. Hale Contracting Officer	
15B. CONTRACTOR/OFFEROR <i>Sheryl K. Weimann</i> (Signature of person authorized to sign)	15C. DATE SIGNED 4/20/05	16B. UNITED STATES OF AMERICA BY <i>Penelope A. Hale</i> (Signature of Contracting Officer)	16C. DATE SIGNED 4/20/05

1. In accordance with Master Contract NAS5-98144, C.7, Technology Refreshment Process, the technology refreshment services referenced below is hereby incorporated into this Delivery Order at a fixed price of \$115,104.49.

SWR #	Subject	Amount
XJCY 5090 00	Install network, telephone and CATV wiring in new addition of B1100 South	\$115,104.49

2. SWR XJCY 5090 00

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and equipment installation) and materials necessary install network, telephone and CATV wiring to the new addition of B1100 South as outlined in OAO proposal dated March 24, 2005. This effort shall be accomplished in two phases:

Phase I: Installation (1st and 3rd floors) - \$93,822.23

1. Install (2) Cat6 and (1) Cat3 wires to (78) jack locations distributed over 1st & 2nd floors only.
2. Install one 24-strand singlemode fiber cable to support NASA network switches and (1) 12-strand singlemode fiber cable to support CNMOC network switch from room 22228 to room 11153A on first floor.
3. Install one cable T.V. drop to (2) locations on the 1st floor and (3) locations on the 3rd floor.

Phase 2: Installation (2nd floor) - \$21,282.26

1. Install (2) Cat6 and (1) Cat3 wires to (42) jack locations on the 2nd floor.
2. Install one cable TV drop to (4) locations on the 2nd floor only. Work shall be initiated only after the floor has been completed and the NASA DOCOTR has given authorization to start the job.

Installation will include testing, labeling, and configuration documentation (red line drawings).

- a. The contractor shall be responsible for performance of the following Phase 1 tasks on the 1st and 3rd floors:

OAO shall work:

- (1) Install one GFE Cisco CAT4506 with one SUP IV and one 10/100/1000 48 port blade on the OAN.
- (2) Install one GFE Cisco CAT2950-24 on the Guest network
- (3) Install one GFE Cisco Wireless AP1200 on the Guest network
- (4) Ensure new switches are on Ehealth
- (5) Ensure CiscoWorks network map is updated
- (6) Ensure WLSE network map is updated
- (7) Update network drawing
- (8) Update security plan

BOE-TEL shall work:

- (1) Install (2) plenum Cat6 and (1) plenum Cat3 wires to (41) locations on the 1st floor and terminate into (2) network jacks and (2) telephone jacks at each location.
- (2) Install (2) Cat6 and (1) Cat3 wires to (37) locations on the 3rd floor and terminate into (2) network jacks and (2) telephone jacks at each location.
- (3) Install (1) 24-strand singlemode fiber from room 22228 to room 11153A to support the NASA network switches.
- (4) Install (1) 12-strand singlemode fiber from room 22228 to room 11153A to support the CNMOC network switch.
- (5) Install (1) 300-pair copper cable from room 22228 to room 11153A to support the telephones.
- (6) Install (2) sheets of ¾" x 4' x 8' in room 11153A to mount wiring blocks on.
- (7) Install (5) Systimax 336-pair wiring blocks and associated hardware on plywood to support the network wiring.
- (8) Install Flextray from room 11153A thru out 1st floor to hold wiring and some on the 3rd floor.
- (9) Install (2) 19" x 84" aluminum racks in room 11153A. One will be used for NASA and the other for CNMOC to hold fiber and network switch.
- (10) Install (1) Systimax LST1U-072/7 in room 22228 and (2) in room 11153A. The one in room 22228 will be used to terminate the NASA fiber. One in room 11153A will be used to terminate the other end of the NASA fiber. The second one will be used to terminate the CNMOC fiber in room 11153A and the other end will be terminated in an existing LGX panel in room 22228 being used by CNMOC.
- (11) Terminate fiber into ST connectors and place in LST1U-072/7's in room 11153A and room 22228.
- (12) Install (72) Cat6 solid copper cables from network switches to Visipatch and terminate.
- (13) Install (4) Cat6 48-port Cat6 patch panels in room 11153A for CNMOC network.
- (14) Install (1) CATV transmitter in room 174 of B1201.
- (15) Install (1) CATV receiver in room 11153A of B1100S.
- (16) Install (1) RG11 plenum coax from room 11153A up to 2nd floor hallway and then on up to 3rd floor hallway.
- (17) Install (1) CATV amp in room 11153A and connect to CATV receiver using RG11 coax.
- (18) Install (1) CATV 8-port tap in room 11153A and (1) 8-port tap in hallway on 2nd floor and (1) 8-port tap in hallway on the 3rd floor.
- (19) Install (1) RG6 plenum coax to (2) locations on the 1st floor and (3) locations on the 3rd floor and terminate into a single faceplate at each location. Place theft-proof terminators on all unused ports on all the CATV taps.
- (20) Install Caddy J-hooks in places where there is no cable tray to run wiring.
- (21) Extend wiring from Visipatch panels over to Cat6 patch panels for CNMOC.
- (22) Test and label the fiber cables.
- (23) Test and label the Cat6 and Cat3 wires.
- (24) Provide OAO with redline drawing showing jack numbers and locations.

BOE-TEL shall place GFE wiring only for CSC:

- (25) Install (1) audio wire from room 11153B to (9) floor box locations in new conference room and leave 1 foot of slack in each floor box and 16 feet of slack in room 11153B so that CSC video technician can make final connections.

- (26) Install (1) Extron 22-020-03 Mini 5 video cable from room 11153B to (1) floor box location in new conference room and leave 1 foot of slack and leave 16 feet of slack in room 11153B so that CSC video technician can make final connections.

b. The contractor shall provide the following material for Phase 1:

BOE-TEL will provide:

- (1) 3,600 feet of plenum Systimax 2071 level 7 (CMP-00424AVA-7U-04) green
- (2) 1,800 feet of plenum Systimax Cat3 wire (CMP-00424MAX-3U) white
- (3) 500 feet of plenum Belden 82248 RG6 coax (B822248)
- (4) 450 feet of 300-pair plenum copper cable (CMP-30024-SAC-3)
- (5) 450 feet of Corning 24-strand singlemode fiber cable (370-948-SMODE-24)
- (6) 450 feet of Corning 12-strand singlemode fiber cable (370-948-SMODE-12)
- (7) 200 feet of Belden plenum RG11 coax (B1153A)
- (8) 156 each Systimax MGS400 T568A/B Cat6 jack (246746) green
- (9) 156 each Systimax M1BH Cat3 jack (240707) gray
- (10) 156 each 110C-4 connectors (073039)
- (11) 180 each 14 feet Cat6 patch cord green (MM14-AV7E-04)
- (12) 120 each 110C-5 connectors (061268)
- (13) 88 each cool cure consumables (142172)
- (14) 88 each P3020A-C-125 singlemode ST connectors (157475)
- (15) 88 each C3000A-2 singlemode ST couplers (105263)
- (16) 78 each Systimax M14L-262 faceplate white (197613)
- (17) 72 each Cat6 solid copper cords (CPC3842-04F30) green
- (18) 50 each Caddy J-hooks (184873)
- (19) 40 pair Flextray 8" center hanger (196501)
- (20) 40 each Flextray 2" x 8" x10' (174337)
- (21) 40 each Flextray threaded rod (FT1909)
- (22) 40 each Aluminum D rings size D (073939)
- (23) 32 each RG6 "F" connectors (186250)
- (24) 18 each Systimax Visipatch distribution rings (532421)
- (25) 16 each "F" male theft proof terminators (021946)
- (26) 12 each Nelson ceramic firestop 2lb bag (073371)
- (27) 12 each 2-meter singlemode ST/ST fiber jumper (15198&)
- (28) 9 each Systimax Visipatch space duct (238618)
- (29) 8 each RG11 "F" connectors (084705)
- (30) 6 each Flextray 8" L brackets (217074)
- (31) 6 each 110AW2-300 pair wiring block (154071)
- (32) 5 each Systimax 336-pair Visipatch panel (532210)
- (33) 5 each Systimax Visipatch horizontal duct (539650)
- (34) 4 each RG6 single port video faceplate (142763)
- (35) 4 each 2-meter singlemode ST/SC fiber jumper (152037)
- (36) 4 each Systimax 48-port Cat6 PatchMax patch panel (246726)
- (37) 3 each Systimax LST1U-072/7 termination shelf (106722)
- (38) 3 each Systimax 1000ST panels (106730)
- (39) 3 each double sided vertical through (166031)
- (40) 2 packs of Flextray threaded rod anchors (FT3820STB)
- (41) 2 packs of Flextray washer splice kits (214856)
- (42) 2 each 19" x 84" aluminum equipment rack (143582)
- (43) 2 packs of Premier black cable ties (739308)
- (44) 2 sheets of 3/4" x 4' x 8' plywood

- (45) 2 each 10-meter ADC singlemode simplex fiber jumper (FPC-APSC-S-10)
- (46) 2 each 6-meter ADC singlemode simplex fiber jumper (FPC-APSC-S-6)
- (47) 2 each ARRIS directional coupler (RLDC10-12)
- (48) 2 each ADC fiber optic splitter (VSM-2-7A7A4900A0000)
- (49) 2 each 7-meter singlemode ST/SC fiber jumper (266846)
- (50) 1 roll of Velcro ties
- (51) 1 each Systimax level 7 solid copper cords (CPC3482-04F30)
- (52) 1 pack of Flextray 3/8" hex nuts (FT1876)
- (53) 1 pack of Flextray 3/8" flat washer (FT1876)
- (54) 1 each Systimax M101SMB-262 1-port mounting box (190269)
- (55) 1 each 110AW2-100 wiring block (154069)
- (56) 1 each Milan MIL-C2413-15 100Base-TX to 100Base-FX SMF (226862)
- (57) 1 each Milan MIL-C2113-15 110Base-TX to 100Base-FX SMF (226119)
- (58) 1 each BNI TR2200-750 (38)-N17-SC-APC receiver
- (59) 1 each BNI TR2100-7715-860-R17-SC-APC transmitter
- (60) 1 each 8-port video tap (245616)
- (61) 1 each 8-port video tap (245619)
- (62) 1 each 8-port video tap (245620)
- (63) 1 each distribution amp (217101)
- (64) 1 each M81C-B coaxial video coupler (190526)

c. The contractor shall be responsible for performance of the following Phase 2 tasks upon authorization from NASA DOCOTR:

BOE-TEL shall work:

- (1) Install (2) Cat6 and (1) Cat3 wire to (42) locations on the 2nd floor and terminate into (2) network and (2) telephone jacks at each location.
- (2) Install (1) RG6 plenum coax to (4) locations on the 2nd floor and terminate into a single faceplate at each location.
- (3) Test and label the Cat6 and Cat3 wires.
- (4) Provide OAO with redline drawing showing jack numbers and locations.

d. The contractor shall provide the following material for Phase 2:

BOE-TEL shall provide:

- (1) 20,000 feet of plenum Systimax 2071 level 7 (CMP-00424AVA-7U-04) green
- (2) 10,000 feet of plenum Systimax Cat3 wire (CMP-00424MAX-3U) white
- (3) 500 feet of plenum Belden 82248 RG6 coax (B822248)
- (4) 84 each Systimax MGS400 T568A/B Cat6 jack (246746) green
- (5) 84 each Systimax M1BH Cat3 jack (240707) gray
- (6) 84 each 110C-4 connectors (073039)
- (7) 42 each Systimax M14L-262 faceplate white (197613)
- (8) 16 each RG6 "F" connectors (186250)
- (9) 4 each RG6 single port video faceplate (142763)

e. NASA will provide the following material:

- (1) 1 each CAT4506 with SupIV and one 10/100/1000 48 port blade
- (2) 4 each GFE 1000BASE-LX/LH long haul GBIC

- f. Schedule: The completion of Phase 1 of this effort shall be (6) six weeks after receipt of a signed modification. Phase 2 shall be completed 6 months after receipt of a signed modification.
3. Part II "Contract Administration Data", Item 4, is revised as indicated below to incorporate the increase of \$115,104.49 for this infrastructure upgrade:

Month/Mod	Description	Monthly Total	Actual Total To Date
Mar-05	Ordered Seats and Services	396,458.61	1,577,094.53
Feb-05	Catalog Services	45,023.29	160,148.61
Feb-05	Specialized Services	(45.36)	862.24
Mod 9	Infrastructure upgrades	125,753.99	185,186.31
	Fast Track Mods Authorized (but not incorporated by Mod)	1,829.88	26,683.17
	sub-total of ordered services	\$ 569,020.41	\$ 1,949,974.86
Feb-05	Less facility credit	-	-
Feb-05	Less outage credit	-	(604.88)
	Less retainage not earned	-	-
TOTAL		\$ 569,020.41	\$ 1,949,369.98

4. Part V "Technology Infusion (Infrastructure Upgrades)", Item 3 is modified to include the subject infrastructure upgrades. The signed date and completion date will be completed in a future infrastructure upgrade modification.

Mod	Description	Date Signed	Amount
13	Install network, telephone and CATV wiring in new addition of B1100 South		\$115,104.49

5. Payment Schedule: Invoicing and Payment for this modification will be made in accordance with Master Contract NAS5-98144, FAR 52.212-4: Commercial Items (May 1997) (Modified) in accordance with the following:

Phase I Billing for 1st & 3rd floors:

Payment of \$48,813.72 shall be paid upon receipt of all material for the 1st & 3rd floors and accepted by the DOCOTR or designee.

Phase II Billing for 1st & 3rd floors:

Payment of \$22,504.26 after all Cat6 network wiring, Cat3 telephone wiring, CATV coax cables have been installed to the 1st and 3rd floors and fiber cables has been installed to the 1st floor communications closet only and verified by the DOCOTR or designee.

Phase III Billing for 1st & 3rd floors:

Payment of \$22,504.25 once all equipment racks, Cat6, Cat3 wiring blocks, Cat6, Cat3 jacks, CATV taps, transmitter, receiver, CATV jacks have been installed on 1st and 3rd floors only and fiber panels, fiber couplers, fiber terminations have been installed on the 1st floor only and the testing of Cat6, Cat3 wiring and fiber has been tested and job completion as verified by DOCOTR or designee.

Phase IV Billing for 2nd floor:

Payment of \$10,164.82 shall be paid upon receipt of all material for the 2nd floor and verified by the DOCOTR or designee.

Phase V Billing for 2nd floor:

Payment of \$11,117.44 after all Cat6 network wiring, Cat3 telephone wiring, CATV coax cables have been installed to the 2nd floor and testing has been completed and job completion as verified by the DOCOTR or designee.

6. Reporting requirements: The contractor shall provide monthly status reports to the SSC DOCOTR, with a copy to the DOCO. These reports shall include, as a minimum, installation progress, and potential problem areas.
7. In consideration of the modification agreed to herein as complete equitable adjustment for the changes set forth, the Contractor hereby releases the Government from any and all liability under this delivery order for further equitable adjustments attributable to such facts or circumstances giving rise to these changes.
8. All other terms and conditions of this Delivery Order remain unchanged and in full force and effect.